

among multiple virtual machines. In another embodiment, a real-time hypervisor may be used to guarantee that each real-time virtual machine is locked into physical RAM, and is never swapped to disk. This approach may be used to insure that every real-time event is serviced consistently, with deterministic timing. In yet another embodiment, the hypervisor may be used to dedicate a core in a multi-core processor to a virtual machine, such as a virtual gaming machine.

**[0214]** FIGS. 9A-N are examples of video content for multi-layer displays, with and without an externally controlled interfaces, for various embodiments of the present invention. The figures include composite images with two parts. A top half of each composite image is derived from video data that is designed to be displayed on a back layer of a multilayer display and a lower half of the image is derived from video data designed to be displayed on a front layer of a multilayer display. The top half and the bottom half of each composite image are designed to be displayed at the same time on a back layer and a front layer of a multilayer display.

**[0215]** For the purposes of illustration, the composite images may be related to different game states that can occur during a play of a wager-based game on a gaming machine including a multilayer display. The composite images generally include a primary game state or a secondary game state that may be generated by a master gaming controller on the gaming machine. In particular, the primary game state and the secondary game state may be controlled by one or more processes executed by the master gaming controller in response to input received at the gaming machine. Interspersed with the primary game state and second game state images generated by the master gaming controller are images derived from video content that may be generated using commands, instructions and/or data provided by a remote host.

**[0216]** Using a process executed by the master gaming controller, such as an ECI process, the remote host may control output of video content on one or more layers of the multilayer display while the master gaming controller controls output of video content on the one or more layers of the multilayer display related to a primary or secondary game state. In other embodiments, a remote device, such as a game server, may control output of the video content related to the primary game state and the secondary game state. For instance, first remote host may use a first ECI process to control video content related to the primary game states, the secondary game states or combinations thereof, while a second remote host may use a second ECI process to control video content related to the player specific functions illustrated in the figures. As discussed with respect to at least FIG. 8, the master gaming controller may execute one or more processes that allow a remote host to access and to control output of video content on all or portion of one or more layers of a multilayer display.

**[0217]** In FIGS. 9A-9N, examples are provided where a remote host via an ECI is allowed to access and control output of video content at various times on a portion of one or more layers of the multilayer display of a first size and location. These examples are not meant to be limiting as a remote host may be allowed to access and control output of video content on portions of the multilayer display of different sizes, at different locations, with different shapes and using different display screen resolutions. Further, a remote host via an ECI may be allowed to control video output on an entire screen of a layer of a multilayer display device and not just a portion of the screen of the video display device.

**[0218]** In FIG. 9A, video data for a slot game is depicted for the purposes of illustrations only as other games may also be generated on the multilayered display devices described herein. Video content **600** for a back layer of a multilayer display includes depictions of slot reels. Video content **602** for a front layer of a multilayer display includes 5 transparent portions that allow the slot reels to be viewed through the front display and includes non-transparent portions that provide game information, such as credits, lines played, denomination, award amount, etc. The output of the video data **600** and **602** may be controlled by the master gaming controller on the gaming machine.

**[0219]** In FIG. 9B, video content **608** controlled by a remote host is depicted on a portion of the back layer. The video content **606** on the front layer is a transparent portion which allows the video content **608** on the back layer to be viewed. The video content **608** is associated with a player interface that allows a player to access balances, prizes, comps, navigate a menu and request and attendant. The remote host may control output of the video content **608** using an ECI as previously described.

**[0220]** The remote host may be allowed to control output of the video content **608** while a wager-based game is being played. In FIG. 9B, an on-going wager-based game is depicted as reels spinning in **610**. The front layer of the video content associated with the wager-based game is comparable to the depiction in FIG. 9A, which may represent a state of the gaming machine between games.

**[0221]** In particular embodiments, the master gaming controller may be operable to render video images at different sizes, at different locations and using different display screen resolutions to allow a remote host to control output of video content on a portion of one or more layers of a multilayer display while the master gaming controller controls output of video content on remaining portions of the one or more layers of the multilayer display. Thus, a difference between FIGS. 9A and 9B is that the reels depicted on the back layer in **610** occupy a smaller portion of the back layer display than in **600** and the associated frame that provides game information in **604** is smaller than in **602**. The video data associated with the primary game state may be rendered in a portion of the front and back layers of the multilayer displays to allow the video content output under control of the remote host **608** to be viewed.

**[0222]** In FIG. 9C, a back layer and a front layer of a multilayer display comprises video content **609** for the player interface and a transparent portion **607** output under the control of a remote host and video content **612** and **614** associated with a secondary game state, i.e., an initiation of a bonus game state, output under the control of a master gaming controller. In FIG. 9D, a bonus game state is depicted on the front and back layers of multilayer display via video content **616** and **618** that are output under control of the master gaming controller.

**[0223]** In the example, in FIG. 9D, the video content **616** and **618** utilizes the front and back layers of the multilayer display in their entirety. In some instances, during certain game states, a remote host may not be allowed to access one or more layers of the multilayer display and thus, video content associated with an ECI may not be visible as depicted in FIG. 9D during the bonus game presentation. In other embodiments, the ECI may be instantiated or closed under player control and thus, may or may not be open at different times during game play and hence not visible. In yet other